



# Warming to new climate models



New climate modeling research shows that northern temperate forests (top) may contribute to global warming, while tropical forests (bottom) can help keep global temperatures cool.

By Anne M. Stark  
NEWSLINE STAFF WRITER

Planting trees across the United States and Europe to absorb some of the carbon dioxide emitted by the burning of fossil fuels just may outweigh

the positive effects of sequestering that CO<sup>2</sup>. In theory, growing a forest may sound like a good idea to fight global warming, but in temperate regions, such as the United States, those trees also

See CLIMATE, page 7

# American Physical Society recognizes five Lab scientists for contributions to physics

By Anne M. Stark  
NEWSLINE STAFF WRITER

The Laboratory has matched last year’s number of scientists selected as fellows of the American Physical Society. Once again five scientists have earned the distinction.

The APS Fellowship Program was created to recognize APS members who have made advances in knowledge through original research and publication or made significant and innovative contributions in the application of physics to science and technology. They also have made significant contributions to the teaching of physics or service and participation in the activities of APS.

John Moriarty of H Division was selected in the APS computational physics division for his “pioneering contributions to the first-principles quantum-based calculation of interatomic forces in d- and f-electron materials, with major impact on high-pressure physics, multiscale modeling and national security.”

Moriarty, who leads a theory group in H Division and has worked at the Lab since 1982, said he was honored.

“I wasn’t expecting this,” he said. “To be recognized by your peers for your contributions to physics is a great honor. For me, this fellowship is a long time coming.”

Carlos Iglesias, of the Physics and Advanced Technologies V Division, said he knew he was nominated but hadn’t heard any-

See FELLOWS, page 8

# DOE helps Chinese agency to secure nuclear material

By Stephen Wampler  
NEWSLINE STAFF WRITER

Nuclear material protection upgrades have been installed at the Beijing-based China Institute of Atomic Energy (CIAE), thanks to a technical exchange undertaken with several Department of Energy labs, including LLNL.

The work was accomplished under the National Nuclear Security Administration’s (NNSA) Material Protection Control and Accounting (MPC&A) Program and the Office of Nonproliferation and International Security.

Two Lab engineers, Bill Abramson and Jim

See EXCHANGE, page 7

# Reaching out

The Lab’s annual toy drive took place on Wednesday. Hundreds of toys were donated and distributed to local charities. Marie Alvarado of Stockton shows her daughter, Anita, doll cradles constructed by the Lab’s Plant Engineering carpenters. For more on the toy drive, see page 5.



JACQUELINE MCBRIDE/NEWSLINE



Student success by the numbers  
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A secure exchange  
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Signs of a safe holiday  
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# LAB COMMUNITY NEWS

## Weekly Calendar

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Friday  
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The **Brighter Holidays** delivery of gifts and food by Lab groups is from 8 a.m. to noon. Items should be taken to Trailer 6575, near the Discovery Center and accessible from the Uncle Credit Union entrance. Remember to secure the family number and name on all packages. For questions, call Karen Rosenberg, 2-8551, or Kelly Turner, 3-9944.

Up  
&  
Coming

Lab employees are invited to attend the annual **Martin Luther King Jr. celebration**, on Thursday, Jan. 19, from 1 to 2:30 p.m. in the Bldg. 123 auditorium. Terrence Roberts of the Little Rock Nine Foundation will speak at the event. Recipients of the Laboratory's annual Martin Luther King Jr. Scholarship will be introduced and will read their essays. The celebration is co-sponsored by the Directors Office, Administration & Human Resources Directorate, and the Work-Life Center. For more information, contact Susane Head at head6@llnl.gov or 2-9543.

## Holiday schedule

The Laboratory will be **closed**: Friday, Dec. 23; Monday Dec. 26; Friday, Dec. 30; and Monday, Jan. 2

**Mail delivery:** Once a day service Dec. 19–Jan. 3. Normal delivery will resume on Jan. 3.

**Discovery Center:** The Lab's Discovery Center is open to the public Tuesday through Friday, 1-4 p.m. Between Christmas and New Year's Day, the Discovery Center will be open Tuesday through Thursday at its regular hours and will be closed Friday, Dec. 30. It will re-open Tuesday, Jan. 3. Call 3-3272 for more information.

**Cafeterias:** Modified food service Dec. 19–Jan. 3. *Central Café:* all food stations open except the Menutainment and Baja Flats stations. *West Café:* all stations open except the Menutainment and Origins stations. The Site 300 Roadrunner Cafe will offer the Grill station only. The South Side Java Wave & Outtakes and Java Wave gourmet coffee station: closed from Dec. 27 to Jan. 2 and reopen on Tuesday, Jan. 3.

**Fit For Business:** Closed Dec. 19 through Jan. 2 with programs and services restarting on Tuesday, Jan. 3. Group exercise classes will not be in session during that time. The Fitstop onsite workout facility will be open limited hours, 10 a.m. to 2 p.m. Dec. 19-22. For more information, call 2-9402.

**Time Zone:** Closed Friday, Dec. 23-Monday, Jan. 2

**Site 300:** Closed Thursday, Dec. 22-Monday, Dec. 26 and Thursday, Dec. 29-Monday, Jan. 2.

## TSF awards

David Crandall, National Nuclear Security Administration (NNSA) assistant deputy administrator, was on-hand Dec. 7 to witness two award ceremonies, hosted by ICC, which recognized employees who were involved in the planning, design, construction and move-in of the Terascale Simulation Facility (B453). TSF line item awards were handed out at the first ceremony and TSF activation and move-in awards were given at the second. In total, 290 award certificates and plaques were given out.



Crandall is no stranger to the TSF. He toured the building in its beginning stages of construction in August 2003 (pictured above second from right with Michel McCoy, Barbara Atkinson and Dona Crawford).

## Christmas tree recycling program takes place

Laboratory gardeners will pick up office Christmas trees for recycling between Tuesday, Dec. 27, and Thursday, Dec. 29. Trees need to be stripped of nails, tinsel, lights and decorations and placed on the curbside of any of the major streets on-site.

Trees will be used to make mulch for Lab garden and landscaping projects. Employees are reminded that dried out trees can be a fire hazard. To facilitate pick-up, trees should be placed in easy access areas without blocking sidewalks or pathways.

## Data Warehouse to be decommissioned in January

As previously announced, the Data Warehouse will be decommissioned starting Monday, Jan. 9.

As a result, the last Batch Reports generated by the Data Warehouse will be run Jan. 1 and 2 for December month end.

Remember that after Jan. 9, system generated

hard copies of Data Warehouse reports no longer will be available.

For additional information regarding this change, contact the Data Warehouse/Enterprise Reporting Workbench Customer Support Team, 2-9299.

## IN MEMORIAM

### David Saxon

David S. Saxon, a physics scholar who rose through academia at UCLA to become president of the University of California and leader of the Massachusetts Institute of Technology, died early Thursday, Dec. 8, at UCLA Medical Center after a lengthy illness. He was 85.

Saxon joined the UCLA faculty in 1947 as assistant professor of theoretical nuclear physics. He later served as chairman of the physics department and dean of life sciences before being named to UCLA's top academic post, now known as executive vice chancellor. He left UCLA to become provost of the University of California in 1974 and served as UC president from 1975 to 1983. He was chairman of the MIT Corp. from 1983 to 1990.

Born in 1920 in St. Paul, Minn., Saxon earned both his bachelor's (1941) and doctoral (1944) degrees at MIT. Three years after joining the UCLA faculty in 1947, he was one of 31 UC faculty members dismissed from the University for objecting to the then-requirement of the University of California Board of Regents that faculty sign a loyalty oath. Following his dismissal, Saxon took a position with the U.S. government, working for the National Bureau of Standards. Shortly thereafter, the California Supreme Court invalidated the UC loyalty oath requirement, and Saxon rejoined the UCLA faculty in 1952.

As president of the UC system, Saxon was an energetic advocate for the academic quality of the university and the public benefits conveyed by the university.

A Westwood resident, Saxon is survived by his

wife of 65 years, Shirley; six daughters; and six grandchildren.

A memorial service will be planned at UCLA in 2006. The family suggests contributions to the David Saxon Physics Graduate Fellowship Fund, UCLA Foundation, 10920 Wilshire Blvd, Los Angeles, 90024; or the Braille Institute, 741 N. Vermont Ave., Los Angeles, 90029.

## Newsline

Newsline is published weekly by the Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

### Contacts:

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## NEWS OF NOTE



## Changes come to Lab's employee publications

Changes are coming to *Newsline* and *NewsOnLine* in 2006 as part of an effort to enhance Laboratory communications and operate more efficiently.

Sporting a new look for the new year, *Newsline* will appear every other week starting in January with the annual year-in-review edition to be published Friday, Jan. 6. A new tabloid style format will enhance graphics and readability.

*NewsOnLine* will appear more frequently, also in an enhanced format to improve readability and reduce scrolling. *NewsOnLine*, currently published twice a week (Monday and Wednesday), will increase to Mondays, Wednesdays and Fridays, eventually moving toward a daily publication. Calendar items

appearing in *NewsOnLine* will be updated daily. New features and format enhancements will be added over time.

Following a national trend, the Laboratory is relying increasingly on Web-based communications. Changes to *NewsOnLine* will allow for more timely communication on topics of interest to employees and make information easier to find.

As a bi-monthly publication, *Newsline* will emphasize news features about Lab research that is of broad interest as well as employee profiles. The Technical Meeting Calendar will appear as a daily listing in *NewsOnLine*, but will no longer be published in *Newsline*. Other weekly items and listings that ran in *Newsline* will be pub-

lished only in *NewsOnLine*.

Due to upgrades to the Lab's information systems, the classified ads will be revamped and administered using a new more cost-effective system. There may be a brief transition period during which classified ads would not appear in *Newsline*. Ad categories will be simplified and restrictions put in place to ensure equal access for all employees and retirees.

For questions about submitting articles or announcements to *Newsline* and/or *NewsOnLine*, contact editor Don Johnston at 3-4902 or [johnston19@llnl.gov](mailto:johnston19@llnl.gov). Additional information about how and when to submit items will appear in upcoming editions of *Newsline* and *NewsOnLine*.

## Adding to students' success through MATHCOUNTS

Does math count as your expertise? Can you share your knowledge and enthusiasm with local students to help improve their skills and confidence in solving math problems?

Lab volunteers are needed as coaches and mentors in the MATHCOUNTS program, a new pilot activity sponsored by the Lab's Science and Technology Education Program (STEP) with the Livermore Valley Joint Unified School District.

MATHCOUNTS is a nationwide program that heightens middle school students' interest in mathematics by making math achievement as challenging, exciting and prestigious as a school sport.

Currently, Lab volunteers are coaching students at four school sites in Livermore: Christensen, East Avenue, Mendenhall, and Our Savior Lutheran. The volunteer coaches spend no more than one hour each week helping students.

MATHCOUNTS is in place at East Avenue Middle School, with lead coaches, recent retirees Jim and Louise Morris; Mendenhall Middle School, with B Division's Ted Perry; Christensen Middle School with LLNL retiree and Livermore School Board member Bill Dunlop; and Our Savior Lutheran School, with Peter Murphy.

"We already do a lot for students who are low achievers. But, we need to provide opportunities for students who not only do well, but can do even better," Dunlop states.

"MATHCOUNTS is just such a program."

Twenty or more volunteers are needed to help students in Livermore as the MATHCOUNTS popularity multiplies. Junction Avenue and Livermore's charter schools are planning future additions of MATHCOUNTS.

Dick Farnsworth, STEP manager, says "MATHCOUNTS sessions are adding up. For instance, we began a new program at Christensen Middle School on Nov. 29 with 26 students and four volunteers. We anticipate that with word-of-mouth advertising among the students, we will exceed the capacity of the room. We will then need more volunteer coaches at this school alone."

Farnsworth also stated that if the pilot



Keith Nakanishi of the Lab's Energy and Environment Directorate, coaches middle school students during a MATHCOUNTS session.

MATHCOUNTS program proves successful in Livermore, it may be made available to other school districts where Lab employees reside.

How does the program work? The MATHCOUNTS Foundation offers math problems to middle schools for student practice. Teachers and volunteers use these 300 problems and activities to coach students as part of an extracurricular activity during the morning sessions.

After several months of coaching, Livermore students compete in a local math competition. The 2006 City of Livermore competition will be held Jan. 14 at the Robert Livermore Community Center. All Livermore MATHCOUNTS participants are invited to take part.

After the city competition, each school selects teams to participate in a regional level competition held in February with winners progressing to state competitions in March. Results at the state level determine the top four individuals and top coach, who earn the honor of representing their state at the national finals.

If you are interested in being counted in as a MATHCOUNTS coach or mentor, or want more information, contact Farnsworth at 2-5059.

To find out more about the Livermore MATHCOUNTS program go to <http://education.llnl.gov/mathcounts/> or for information about the national MATHCOUNTS program, go to the Web at <http://www.mathcounts.org/>



## SECURITY CORNER

## New server bolsters e-mail security

By Marvin Christensen  
INFORMATION TECHNOLOGY

A new mail server will allow secure classified electronic information exchange, using encrypted e-mail, between Livermore and other capable NNSA sites. This secure e-mail capability marks a significant milestone on the Livermore Computer Center's classified network.

Secure Email is the first major deliverable of the Enterprise Secure Network's or ESN. The Integrated Cyber Security Initiative, an NNSA HQ-funded product, deployed Entrust on the classified network in collaboration with Lab's Cyber Security Program and Livermore Computing.

"While electronic classified removable media, or CREM, may be necessary for some situations, access to ESN Secure Email at the Lab provides the users a secure alternative and reduces the need to create and handle electronic classified removable media," said chief cyber security officer Mark Graff.

On Nov. 1, Livermore received approval from the SecureNet DAA to operate an Entrust server providing encryption on the classified network. This allows authorized Laboratory users to send and receive information up to the "Secret-SIGMA 15" data category using Secure Email.

Derek Wapman, the Lab's W80 project manager, said "DNT has wanted this service for a long time. Secure Email is something we can start using today."

The Lab's introduction of secure e-mail leverages the same technology as its unclassified use. Suzanne Smith of CSP says that, "by implementing Entrust encryption application



JACQUELINE MCBRIDE/NEWSLINE

Sitting (left to right): Lab cyber security team members Chris Garcia, Suzanne Smith, Fred Warren. Standing (left to right): Marvin Christensen, JoAnne Revelli, John Allen, Paul Masi, Ed Miller, Sue Padilla, Teena Henson. The team put together Secure Email.

on both classified and unclassified, we can reduce the total costs of operations, because end users and support personnel need to learn only one encryption application."

Now the Lab is authorized and ready to enroll classified computer users with secure e-mail. Once enrolled, by using their classified computer systems, users can exchange classified data easily and securely with their counterparts at other NNSA classified sites.

Livermore is cross-certified with Sandia National Lab, NNSA Service Center, Nevada Site Office, Kansas City Plant, Y-12, Savannah River Site, NNSA, and the Office of Scientific and Technical Information, known as OSTI. Los Alamos and Pantex soon will be cross-certified.

For additional information, phone the LC Hotline at 2-4531 (option 2), or e-mail [cln-entrust@llnl.gov](mailto:cln-entrust@llnl.gov).

## Technical Meeting Calendar

Friday  
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### PHYSICS AND ADVANCED TECHNOLOGIES/ INSTITUTE FOR GEOPHYSICS AND PLANETARY PHYSICS

"A New Look at Dark Matter in the Universe," by Manoj Kaplinghat, UC Irvine. Noon, Bldg. 319, room 205. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Wil van Breguel, 2-7195, or Lisa Lopez, 3-0250.

### ENERGETIC MATERIALS CENTER

"Shock Initiation Experiments of PBX9502," by Kevin Vandersall, Chemistry and Materials Science, LLNL. 10:30-11:30 a.m., Bldg. 191, room LX conference room. Limited area, but unclassified talk. Contact: Sue Stacy, 4-2607, or Kurt Glaesemann, 3-1579.

Monday  
19

### CHEMISTRY AND MATERIALS SCIENCE DIRECTORATE

"The Physics of Crystal Growth and Dissolution," by Katsuo Tsukamoto, Earth and

Planetary Sciences, Graduate School of Science, Tohoku University, Sendai, Japan. 10 a.m., Bldg. 155 auditorium. Foreign national temporary escorted building access procedures apply. Contact: Jim De Yoreo, 3-4240, or Brenda Foster, 2-5214

### CHEMISTRY AND MATERIALS SCIENCE

"Functionalized Surfaces — Keys to Chemical and Biological Weapon Detection," by Brad Hart, Forensic Chemistry Group, 2 p.m., Bldg. 151, room 1209. Property protection area. Foreign national temporary escorted building access procedures apply. Contact: Ted Tarasow, 3-7241, or Kathy Ricard, 3-8024.

Tuesday  
20

### CENTER FOR APPLIED SCIENTIFIC COMPUTING (CASC)/INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH (ISCR)

"A Data Centric View of Scientific Computing," by Scott B. Baden, Department of Computer Science & Engineering, UC San Diego. 10 a.m., Bldg. 451, room 1025. For more information, go to [http://www.llnl.gov/casc/cal-](http://www.llnl.gov/casc/cal-endar.shtml)

[endar.shtml](http://www.llnl.gov/casc/cal-endar.shtml). Property protection area. Foreign national temporary building access procedures apply. Contact: Dan Quinlan (CASC), 3-2668, or Erica Dannenberg, 3-2167.

Wednesday  
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### CHEMISTRY AND MATERIALS SCIENCE/ MATERIAL SCIENCE & TECHNOLOGY DIVISION

"Catching Phonons in Plutonium: My Story," by Joe Wong. 9 a.m., Bldg. 235, room 1090. Common use facility. Foreign nationals may attend. Contact: Paula Peterson, 4-4844.

**The deadline for the next Technical Meeting Calendar is noon Wednesday.**

Please submit your meetings through the Technical Meeting Calendar form on the Web, located at <http://www.llnl.gov/tmc/index.html>

For information on electronic mail or the newsgroup [llnl.meeting](mailto:llnl.meeting), contact the registrar at [registrar@llnl.gov](mailto:registrar@llnl.gov).

# AROUND THE LAB



## HOME surpasses \$1.5 million

The 2005 HOME (helping others more effectively) campaign closed on Dec. 9, raising \$1,532,697 in donations with 3,065 employees participating. This marks the completion of the Lab's 31st campaign and the seventh consecutive year that the total has surpassed \$1 million. Chairperson Patti Lann said that this year the campaign faced an unprecedented challenge at the onset when employees were eager to help victims of Hurricane Katrina.

The campaign conducted a successful three-day drive for hurricane victims during which employees could give one-time



donations via personal checks to agencies at the cafeterias, and also opened the online donation process for a one-week period of time to receive donations. A total of \$70,000 in donations was collected for hurricane victims for the Salvation Army, American Red Cross and SPCA.

"I want to thank a very dedicated committee who worked hard. I also want to thank those generous Lab employees who gave in many ways, including the donation of their time, effort and pledges. This has been another successful HOME Campaign," Lann said.

## Operational Security flier offers tips for ensuring a secure holiday season

Santa's not the only one who's making a list and checking it twice. Thanks to the efforts of the Lab's Security Department, there's a one-page flyer just chock-full of timely reminders to avoid the "BAH, humbugs" and to help employees save their money, their belongings, their sanity, as well as their identity, during the holiday hustle and bustle. Remember, this time of the year is not only busy for merchants and shoppers, it's also prime time for thieves.

The reminders for a safe and secure holiday season were assembled by the OPSEC Program and can be viewed — or bookmarked — at [http://www.llnl.gov/pao/employee/articles/2005/OPSEC\\_holiday.pdf](http://www.llnl.gov/pao/employee/articles/2005/OPSEC_holiday.pdf). Print a copy to share with family and friends. Color copies, suitable for the most festive bulletin boards, are available from the OPSEC Program Office at 2-5000, or e-mail [opsec@llnl.gov](mailto:opsec@llnl.gov).

## Toying with the holidays



Photos by Jacqueline McBride  
Newsline



On Wednesday morning, Lab volunteers met with representatives from four local agencies who came to the Lab to collect toys donated through the B Division book sale and Plant Engineering (top right). The agencies included Children's Hospital in Oakland, Tri-Valley Haven, Alameda County Child Abuse Prevention Council and the Council for the Spanish Speaking. The annual toy drive has been spearheaded by Lynn Groves for the past 15 years. Paola Armenta, above, and Andrew Alvarado, right, pick out their favorite toys.





# CLASSIFIED ADS

See complete classified ad listings at  
<https://www-ais.llnl.gov/newsline/ads/>

**AUTOMOBILES**

1994 - Honda Accord EX - Original owner 200K Miles. Averages 28MPG. Runs, handles, and looks great. Perfect for commuter or a teenager's first car. \$3,300 209-599-0922

2000 - Ford Mustang, V6, 5speed manual, white w/grey int., 64k miles, Alpine stereo w/Sony X-plode speakers. \$6,000. 925-784-4876

2001 - Silver Hyundai Tiburon, auto, 102,000 miles, pw, pl, a/c, cc, power sunroof, 6 disc changer, accident free, clean title, \$5,600 OBO 925-980-3269 925-449-9167

1985 - Chevy Camaro 2.8litre V-6 automatic \$1,200.00 209-951-8201

2000 - Plymouth Neon, automatic, 131K freeway miles, good condition, great commuter car, K&N Air Filter, AC, CD, upgraded speakers, \$4500/obo 209-810-7129

1997 - El Dorado in beautiful condition. All pwr, tires like new, leather pwr seats, low miles.Garaged. Must see. Just under Blue Book 510-582-2938

2003 - Nissan 350Z ~15,350 Miles, pw,pl,pb,ps, custom stereo, car cover, limited brickyard color. \$26,500. 209-551-4309

2003 - BMW Z4 convertible, metallic black, 18,888 miles, SMG transmission, sport pkg, wood trim - maint program to 50,000 miles - Tracy \$30,900 650-743-2926

**AUTOMOBILE ACCESSORIES**

Ski rack for Jeep Cherokee or other vehicle with rain gutters. \$20 OBO. 209-814-5278 or 209-832-3331

Cooler/warmer 12V, keeps food & drink cold or warm in vehicle. Plugs into 12 volt DC power outlet. Paid \$30 plus tax. New in box. \$20 925-648-0671

Fuel pump \$50 OBO, new tire and rim 205x75x15 925-735-6002

Chev S-10 1991 all the Manuals you need, 3 each pulse owners. \$50.00 for all, very good shape 925-895-1692

Chrome rear bumper and receiver style trailer hitch for 1990 full size Chevy pickup, \$50 each. 209-239-6353

**BICYCLES**

GT BMX bike, 4130 CroMo, F+R pegs, too much to mention, must see, like new, great gift! Sac. \$100 OBO 510-521-6252

Trek Mountaintrack 220,all-steel frame girls (9-12) bike in blue/silver hardly used \$150 obo. 925-447-4370

**BOATS**

Sea Doo 60 inch round ski tube with 4 padded handles & nylon cover. Paid \$100. New in box. \$60 925-648-0671

**ELECTRONIC EQUIPMENT**

25-inch Phillips color TV - \$40, VHS player - \$15; DVD player - \$25, 209-814-5278 or 209-832-3331

Color printers Epson C60 and HP 600C & thermal fax Brothers Personal 190 \$20 ea. x3-9657 650-952-6186

Black & Decker portable heater w/adjustable thermostat, 2 heat settings with fan, 25 x 17 high. New in box. Paid \$40 plus tax. Great gift! \$25 925-648-0671

Nice starter stereo equipment. Akai stereo cassette deck 50.00, Sony AM FM stereo receiver, 50.00. Excellent condition. Can bring to work. 510-537-7222

**GIVEAWAY**

Skis Elan 167cm and Fisher 157cm with bindings call 650-952-6186

King size mattress, pillow-top style, 76x80 size, good condition. We bought an air bed mattress, no longer need this one. Approx 8 years old. Free 925-961-0462

Free 14 ft round trampoline, good condition. You disassemble and/or haul 926-443-8276

White Cosco portable crib 24x38 with extra mattress pad. Used one or two nights, new condition. Meets Federal requirements 925-784-0523 925-443-9929

**HOUSEHOLD**

Oak Entertainment Center. With smoked glass doors, shelves for TV, home theatre, games. Pullout shelf, drawers, multiple media storage. \$399 OBO 925-828-1998

2 Dining Room Sets for sale. Each set has a round table with four chairs. Good condition. \$75/per set. 209-823-8126

Gold drapes one-way 9.5ft.x7ft.,2 two-way 13ft.x8ft.and 7.5ft.x7ft.& hardware-\$75. Queen-sofa/sleeper-Brown/Yellow-\$60.New carpet \$45. 925-447-2282 925

Four Post Queen Bed, Solid Pine, 3 years old, w/ Firm BetterRest Box and Mattress \$700 call after 5PM 209-234-1366

DESK. 3ft x 5ft steel office desk with locking drawers and file storage. Good condition. \$50 OBO 925-828-1998

Desk, golden oak, refinished 14 yrs ago, orig purch from Lab salvage yard, 30 in x 60 in top, one hanging file drawer, good shape, \$100. 925-606-6155

Pottery Barn Kids Desk and low hutch, w/ chair, honey-wood, \$175. Pet barrier for SUV or Van, adjustable black metal tubes, \$25. 925-294-9022

Black and Decker one cup coffee maker. Brews in 1 minute. Includes Folgers pods. Paid \$40. New in box. \$25 925-648-0671

Estate Sale - Desks, dressers, clean mattresses, entertainment center, and more. Items located in Danville and Livermore. Everything must go! 925-499-1871

Refrigerator, GE, White, Side by Side, 19 CuFt, Ice Maker and In Door Dispenser, Works Great, \$50.00 925-426-8224

Whirlpool Refrig, 19.1 cu. ft., reverseable handles, 65 inches by 32 3/4 inches, cream color. Runs great, very good condition. 80.00 OBO 510-582-2938

Oak entertainment center/book case. Height 6 ft, length 5 ft, depth 16.5 inches. Eight compart-

ments, three with adjustable shelves. \$100 925-443-7055

Oak Desk (2) Student Size, Drop Down Front, Buy One Or Both \$50/Each, Excellent Condition. Deliver To Lab. 925-443-8889

Oak dresser and mirror w/matching nightstands, asking \$250. 925-679-3223

Lovely brown rattan table 4 foot diam, insert, 4 swivel chairs. Removable pale yellow cushions, very good condition \$290 925-447-8415

Italian Leather Sofa/Loveseat \$850 o.b.o Excellent condition, navy blue, no scratches, perfect for home/office. 925-354-1137

Moving and doesnt fit new house. Leather couch, chair and ottoman, new condition, rarely used. paid \$2400 sell for \$1200 obo 925-784-0523

**LOST & FOUND**

Lost white plastic business card holder with Delta Express LLNL-SNL bus tickets inside, if found please call - thanks. 925-876-1046

Found: silver necklace and pendant with stone; in Lot C-4 near 3427. Call & claim. X 3-6649 510-339-9401

**MISCELLANEOUS**

New scooter, used twice. Rechargeable 3 wheel cart with basket. Paid \$1,800. Asking \$900. 925-447-6515

Disney Princess Castle play home. Includes flap door and inflatable cushion. Paid \$80. New in unopened box. \$50 925-648-0671

Table Saw, old Craftsman 10-inch. Works fine, metal stand, some extra blades and accessories. \$50 925-961-0462

New tree stands \$3.75 each, Show time Rotisserie, large \$135, obo, New in box, snow chains \$20, new naugahyde BO 925-735-6002

Nearly new baby crib, from babys r us Dublin, \$550 new, selling for \$300. 925-813-0973

Interior flush door, prehung with jambs, hinges and latchknob, excellent condition, creamy white color \$25 925-447-8415

CARDBOARD BOXES, STURDY for moving/storage, folded flat for easy loading: 40 for \$50 925-447-7070

**MOTORCYCLES**

2004 - HD Softail Deuce, vivid black, lots of chrome, custom pipes, low miles, priced to sell \$15,900. 925-813-0973

**MUSIC INSTRUMENTS**

Ibanez PT-5 guitar effects pedal.Has wha, phase, chorus, delay, distortion, and many more effects. \$175.00. Call evenings. 209-824-0227

Peavy Bandit 112. Only two weeks old, in exellent condition. Sells new for \$379.00 plus tax. \$350.00 firm, call in evenings. 209-824-0227

Upright piano great for learners. Please call after 5:00p.m. 925-339-0537

**PETS & SUPPLIES**

Bird House, handmade. Never used.Can bring to lab if interested. \$6.00 510-537-7222

Thoroughbred Mare 3 1/2 year old great blood lines 1 year training under saddle loving disposition needs experienced rider 209-845-2584

Golden Retriever Puppies, AKC, Born 10/7/05, Vet checked, shots, have both parents, \$350.00 OBO 209-575-9946

**RECREATION EQUIPMENT**

Professional HandiQuilter Frame. Accommodates all size quilts to king size. Mounts to any tabletop surface. \$350 925-785-4680

Water chase lounge for pool by Swim Ways with aluminum frame and 2 cup holders. Paid \$50 plus tax. New in unopened box. \$30 925-648-0671

158 Element Oxygen Snowboard, size 10 boots, and bindings. Great condition, hardly used, \$180-GREAT CHRISTMAS GIFT! 925-373-2832

Tent Trailer, Coleman, Gettysburg, sleeps 6, cloth is in good condition, \$400 925-443-5549

**RIDESHARING**

Express your commute, call 2-RIDE for more information or visit <http://www-r.llnl.gov/tsmp>.

Alameda - Leave Alameda at 0625. Leave LLNL at 1600. Call 510-864-9474, ext. 3-1746

Ripon - 9-80 carpool - Leave Ripon at 6:15am - Leave Lab at 5pm 209-599-0922, ext. 3-9020

Solano County: Vallejo-Benicia Carpool seeks driver/rider. Schedule B 9/80s. Leave Benicia at 6am, 7am - 4:45pm work schedule. 707-246-4810, ext. 4-5589

**SERVICES**

Carpentry and pressure washer specialist available for small and large jobs. 925-518-8194

Face painting for all ocasions and all ages, themes and requests welcomed. Beautiful handmade jewelry, beaded and original sculptural designs. 209-835-4281

ClutterLess(CL) Self Help Group. Clutter stressing you out? Mondays 7-8:30 PM. Come: Pleasanton Presbyterian, Rm 7, 4300 Mirador Drive, or call 925-426-5311

**SHARED HOUSING**

Livermore - Room for rent in condo near Portola. View, walking track. \$750 for master or \$650 for smaller rm. dep. and 1/2 util. 925-339-4505

**TRUCKS & TRAILERS**

1998 - Dodge Ram 124K miles Loaded including Camper Shell. Clean \$8,000.00 OBO 925-862-0809

2002 - Toyota Tundra, Access Cab, V8, 33k miles, excellent cond. \$19k 925-443-5543

1987 - GMC Sieria Classic

2500 ton, towing package, pwr; windows, locks, cd player, AC, new tires, bed tool box, runs good, current reg. \$2000 or B/O. 925-427-4422

1995 - Ford F150 XL White Truck with shell. Excellent condition, original owner, A/C, P/S, new tires, 140K miles. \$6,800.00 OBO. 408-656-0647 408-972-8226

**VACATION RENTALS**

Cozy mountain cabin. 4bedr, 2 bath, wood burning stove.Sleeps 10-12. 20 miles from Bear Valley Ski Resort. Plan ahead for snow. 925-245-1114

Las Vegas - Timeshare Resort available 12/26-12/29. 2bed-room/2baths, \$75/night. with free shuttle services cell. 925-784-4542 925-373-9513

SOUTH LAKE TAHOE - 3 Bedroom 2 Bath Chalet, nicely furnished, all amenities, close to ALL skiing,some holidays still open,RESERVE NOW! 209-599-4644

Maui, HI - Kahana Reef ocean-front 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. 925-449-0761

SUTTER CREEK - Secluded 3BR, 2BA Log Home on 5 wooded acres. 2hr from Livermore; 1hr to Kirkwood. Close to Jackson Casino, Wineries, Nature. 209-836-9252

**WANTED**

Little Tykes Race Car Bed for toddler son. Will pay up to \$50. Good condition only. 209-482-8076

2 Used Bikes for 9 and 10 year old girls for Brighter Christmas. Will fix. 209-403-4942

Wanted - tractor and imple-ments, prefer diesel, 30HP+ 925-803-7627

Wanted: Vintage magazines and/or catalogs from before 1960. Nothing newer please! 510-455-0939

Need room to rent in South Lake Tahoe for the winter, maybe longer. Daughter is working at Heavenly. Maybe house sitting arrangement? 925-922-1674

Two snowbirds need a place to stay for the winter (approx. 12/14-2/14). Looking house-sit (ideally furnished). Willing to pay rent. 925-371-8531

Looking to borrow or buy adult Santa suit and/or Elf suits. Need by December 16, 2005. 925-485-3510

Livermore High School needs a Womens Lacrosse coach this spring. If interested contact Linda or Rex at LHS 606-3299 or 925-980-5862

Acoustic drum set for Non-Profit. Computer and printer for poor, but determined, student. Will provide tax deductible donation receipt. 625-382-4953

Electric or gas concrete mixer, trailer type. 209-892-6186

EXCHANGE

Continued from page 1

Moore, provided engineering and construction assistance on the CIAE upgrades. The overall project was led by researchers from Sandia National Laboratories and also included staff members from Los Alamos and Oak Ridge national laboratories.

The effort was capped off in late October with a week-long series of technical demonstrations on nuclear materials protection control and accounting presented at the CIAE for about 100 Chinese civilian nuclear industry officials by U.S. national lab researchers and engineers.

Among those in attendance at the October demonstrations was NNSA Administrator Linton Brooks, who praised the efforts in an e-mail to Lab Director Michael Anastasio, LANL interim Director Bob Kuckuck and Sandia President Tom Hunter.

“I just wanted to let you know what a great job your people did in getting ready (for the technical exchange),” Brooks wrote. “Your folks did a superb job.”

The upgrades installed at two CIAE facilities — the Fast Neutron Critical Facility and the Materials Storage Facility — included interior and exterior detection systems, closed circuit television, perimeter fences, a new entry control portal, a new central alarm station and other improvements. The Safeguards Laboratory at the CIAE was upgraded with measuring and physical protection equipment and a monitoring console in order to demonstrate technology and processes for nuclear material control and accounting.

“We collaborated with officials at the CIAE on a process to determine what upgrades were needed to increase their material protection,” Abramson said.

Under the MPC&A Program, the U.S. provided the security protection equipment for the CIAE, while the Chinese institute provided the final overall system design and

furnished the project’s labor.

In conjunction with the security improvements, Abramson and Moore taught a two-week vulnerability analysis workshop in June that was attended by about 25 CIAE researchers.

“The Chinese researchers were enthusiastic about the process and the results,” Abramson said. “They were inquisitive, they asked good questions and they were excellent at grasping the concepts of what we trying to share with them.”

Later in the summer, in August, two other Lab employees — Wayne Ruhter and Tzu-Fang Wang — presented a one-week workshop on non-destructive analysis that drew about 25 CIAE researchers.

The second major effort of the exchange, the late October one-week long series of technical demonstrations, featured eight demonstrations of the upgraded Safeguards

Laboratory at CIAE and 20 lectures, some of which were presented by LLNL employees.

Rusty Babcock, an LLNL computer scientist and material control and accounting specialist, gave a demonstration and lecture on accounting for nuclear materials at the national level. LLNL engineer Mike O’Brien spoke about physical protection upgrades, inspections and regulations. Ruhter provided a demonstration on gamma-ray spectrometry.

“One of the things that impressed me was that our Chinese counterparts began to take the lead in explaining the technology and processes to the other Chinese participants, Babcock noted.

The national lab exchange with the Chinese may yield long-term results, as Abramson added: “The ideas that came out of this technical exchange could be used in other parts of China and Asia.”



NNSA Administrator Linton Brooks and Chinese nuclear industry officials welcomed participants to a week-long series of technical demonstrations held in October near Beijing.

CLIMATE

Continued from page 1

would soak up sunlight, causing the Earth’s surface to warm regionally by up to 8 degrees Fahrenheit.

Forests affect climate in three different ways: they absorb the greenhouse gas, carbon dioxide, and help to keep the planet cool; they evaporate water to the atmosphere, which also helps keep the planet cool; and they are dark and absorb a lot of sunlight, warming the Earth.

Using climate models, researchers from the Laboratory and the Carnegie Institution Department of Global Ecology have found that forests in the mid-latitude regions of the Earth, present a more complicated picture. Trees in these areas tend to warm the Earth in the long run. The darkness of these forests absorbs abundant sunlight, warming the land. While the darkness of the forest lasts forever, the effect of the forest sequestering carbon dioxide slows down over time as the atmosphere exchanges CO<sub>2</sub> with the ocean.

The conclusion: Planting a forest in the United States could cool the Earth for a few decades, but would lead to planetary warming in the long term. These are the results of a study that was presented last week at the

American Geophysical Union Fall Meeting in San Francisco.

“On time scales longer than a few centuries, the net effect will actually be warming in these regions,” said Govindasamy Bala of the Livermore team. “We thought planting trees across the Northern Hemisphere would help curb global warming by the CO<sub>2</sub> absorption but what we found was a different story.”

The authors discovered that a global replacement of current vegetation by trees would lead to a global warming of 2.4 degrees Fahrenheit. Global replacement with grassland led to cooling of about 0.7 degrees Fahrenheit

The researchers also found that planting trees between 30-50 degrees latitude worldwide saw the global mean surface air temperature increase by 0.7 degrees Fahrenheit. Regional warming in North America and Eurasia was as high as 8 degrees Fahrenheit. In earlier studies, planting trees in the boreal forest regions (found mostly in the upper half of the Northern Hemisphere) caused a warming of surface temperatures.

“Although it was previously known that trees could have an overall warming effect in the boreal forests (north of 50 degrees), this is the first study to show that temperate

forests could lead to net global warming,” said Livermore’s Seran Gibbard, lead author.

The story is different for the tropical forests. In tropical regions, forests help keep the Earth cool by not only absorbing carbon dioxide, but by evaporating plenty of water as well.

“Should we give carbon credit to the planting of forests? Probably not for countries in mid- and high latitudes,” Bala said. “But the tropical forests present a win-win because they cool the planet by evaporative cooling and the uptake of carbon.”

Co-author Ken Caldeira of the Carnegie Institution warns that proposals to grow more forests to cool the planet should be greeted with caution.

“I like forests. They provide good habitats for plants and animals, and tropical forest are good for climate, so we should be particularly careful to preserve them,” he said. But in terms of climate change, we should focus our efforts on things that can really make a difference, like energy efficiency and developing new sources of clean energy.”

The research, also authored by Thomas Phillips and Michael Wickett of Livermore, appeared online in the Dec. 8 issue of the journal *Geophysical Research Letters*.



## THE BACK PAGE



Vasily V. Bulatov



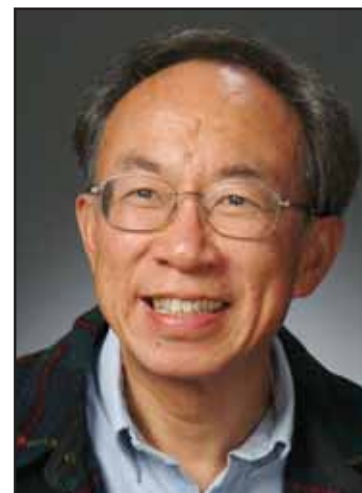
Carlos Iglesias



John Moriarty



Harry Radousky



Joe Wong

### FELLOWS

*Continued from page 1*

thing about the selection until a few weeks ago.

"I was surprised," he said. It's an honor to be recognized by your colleagues."

Iglesias was cited in the plasma physics division for "ground-breaking contributions to the study of the production and transport of radiation in astrophysical and laboratory plasmas, including the development of the OPAL opacity code.

Likewise, Harry Radousky of University Relations said he was nominated more than one and a half years ago and didn't expect to be chosen.

"I really wasn't expecting this at this time," he said. "The letter I received was very non-descript and I just thought it was a renewal form. It really is an honor. All the people that got selected this year are such a tremendous group of people; it's a real honor to be in that class."

Vasily V. Bulatov, a material scientist in the Materials Science and Technology

Division of the Chemistry and Materials Science Directorate, was cited for his computational physics work. He was named for "outstanding contributions to computational materials science, particularly in the areas of dislocation dynamics and crystal plasticity."

Bulatov has been leading the effort to develop a code that helps provide new insight on dislocation dynamics. By combining advances in supercomputing and materials experiments and characterization, the group is looking at how materials deform and fail.

For Joe Wong, a chemist in the Materials Science and Technology Division of CMS, being selected a fellow in a physics society came as a surprise.

When the letter announcing his fellowship arrived at the Lab, Wong almost threw it away.

"I thought it was a membership renewal form so I was just going to throw it away," he said. "But I noticed the postage was a little more than the standard letter." He was right. The letter cited him as a 2005 fellow "for innovative and significant contributions to experimental materials physics, particu-

larly for contributions to XAFS (X-ray Absorption of Fine Structure) and XANES (X-ray Absorption Near Edge Structure), and for the first measurements of phonon dispersion in plutonium."

This year's winners join the ranks of 48 Livermore scientists who have been selected APS fellows since 1995. The 2005 fellows received confirmation letters in late November.

Each year, no more than one-half of 1 percent of the current membership of APS is recognized by their peers for election to the status of fellow.

Each new fellow is elected after careful and competitive review and recommendation by a fellowship committee on the unit level, additional review by the APS Fellowship Committee and final approval by the full APS Council. This year a total of 182 new fellows were named.

To be nominated as an APS fellow, the nominee must be a member of APS in good standing; obtain signatures of two sponsors who are members of APS in good standing; and submit a complete original nomination packet (including supporting letters). The deadlines vary for subject matter.

## CHP warns Tri-Valley motorists

The California Highway Patrol has alerted the Lab's Traffic Safety Committee of a major strike-force cracking down on driving under the influence (DUI), speeding and seatbelts, the three major contributors to deaths on the roadways.

Known as "Operation STAR," for Statewide Traffic Action Response, the campaign begins today (Dec. 16), at 9 p.m., and extends through midnight, Monday, Jan. 2.

According to Steve Creel of CHP's Dublin Office, his department will exercise a "zero-tolerance" enforcement policy for violators. Creel explained that up to 80 percent of all CHP officers will be on the road, air operations will be used to the fullest, and CHP will work with the Office of Traffic Safety, Alcoholic Beverage Control, Caltrans, DMV and local agencies.

While the efforts will be statewide, Creel explained that the Tri-Valley area warrants

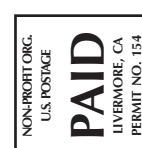


special attention. During the recent Thanksgiving holiday, statewide fatalities were up from the previous year. And half of the Bay Area's eight traffic fatalities occurred locally: three deaths on El Charro Road and one on Interstate 580 in the

Altamont Pass.

"We're determined to reverse those numbers for the Christmas holiday season," said CHP Commander Capt. Stephen Bell. "But we need the public's help. Last year this crackdown resulted in a dramatic 25.5 percent drop in deaths." Bell added, "We want everybody to enjoy the holidays."

Traffic Safety Committee chairman Dennis Barret seconds Bell's message, and hopes Lab employees will drive even more safely because of Operation STAR. Barret further hopes that employees learn about STAR by reading *Newsline* and *NewsOnline*, and not by being stopped by the CHP.



Newsline

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